

Program Progress Performance Report for University Transportation Centers

U.S. Department of Transportation
Research and Innovative Technology Administration
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Project Title: Southeastern Transportation, Research, Innovation Development and Education Center
(STRIDE)

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Signature of Submitting Official: _____
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Accomplishments

What are the major goals of the program?

The STRIDE Center has been devoting its energies to three major areas that are deemed critical in Region 4: safety, livable communities and economic competitiveness. More specifically, the major goals of the Center are:

- a) To develop, implement and maintain a comprehensive research program that addresses critical needs related to safety, livable communities and economic competitiveness
- b) To serve as the focal point for transportation research, education and outreach in the region
- c) To strengthen the collaboration between the partner universities as well as between the consortium and federal, state, and local agencies
- d) To develop ties with other University Transportation Centers (UTCs) and USDOT's research clusters to create opportunities for collaborative activities across centers
- e) To disseminate research results to government, academia and private sectors through publication in peer-reviewed journals, conference papers and presentations at transportation-related industry events
- f) To establish additional communication mechanisms, including the use of social media, by which important research findings are made available to researchers and others with an interest in transportation matters
- g) To utilize research activities to promote transportation-related education as well as careers and employment opportunities
- h) To support and encourage the identification, development, and implementation of inventions and discoveries with the potential to address challenges in the core focus areas.

What was accomplished under these goals?

Accomplishments are listed below under each of the program's major goals:

- a) To develop, implement and maintain a comprehensive research program that addresses critical needs related to safety, livable communities and economic competitiveness**

Accomplishments:

Out of the projects awarded in 2012, there is one remaining active project titled: "Towards a Holistic Understanding of Quality of Life: An Analysis of Activity Travel Patterns on Non-Mid-Week Days (STRIDE Project # 2012-024S)". The principal investigator is Dr. Siva Srinivasan, and we expect the draft final report for the project to be completed very soon. Regarding the 2012 K-12 projects, there is one more project being finalized.

The final report on the project titled "GIS-Based Instructional Tool for Crash Prediction Methods", was delivered on December 4, 2016. Three 2013 projects are still active while all the K-12 2013 projects are completed. A set of tables beginning on page 3 summarize the status of each project. As shown, in Year 1 (2012) of the STRIDE Center, a total of 19 research projects

were competitively awarded, including five K-12 Workforce Development (WD) projects. In Year 2 (2013), a total of 11 research projects were competitively awarded, including four K-12 WD projects.

The STRIDE Center also awarded supplemental technology transfer projects in 2015 and 2016. These activities are reported starting on page 5 under “Supplemental Projects”.

Reports for all completed research projects are posted on the STRIDE website at: <http://www.stride.ce.ufl.edu/completed-projects>.

All technology transfer projects are posted at:

- <http://stride.ce.ufl.edu/technology-transfer-projects-2015>
- <http://stride.ce.ufl.edu/technology-transfer-projects-2016>

Table 1. YEAR 1 PROJECTS (2012)

No.	Research Project Title	STATUS
1	Emissions Modeling and Integration into Traffic Micro-simulation	COMPLETED
2	A Regional Land-use Transportation Decision Support Tool for Mississippi	COMPLETED
3	Engineering: It's for Girls Too!	COMPLETED
4	Empirically-Based Performance Assessment and Simulation of Pedestrian Behavior at Unsignalized Crossings	COMPLETED
5	Quantifying the Costs of School Transportation	COMPLETED
6	Towards a Holistic Understanding of Quality of Life: An Analysis of Activity-Travel Patterns on Non- Mid-week Days	In progress
7	Development of Pedestrian and Bicycle Transportation Course Modules	COMPLETED
8	Consequence Based Route Selection for Hazardous Material Cargo: GIS-Based Time Progression of Environmental Impact Radius of Accidental Spills	COMPLETED
9	Comparative Analysis of Dynamic Pricing Strategies for Managed Lanes	COMPLETED
10	Investigation of ATDM Strategies to Reduce the Probability of Breakdown	COMPLETED
11	Development of Graduate Level Course on Sustainable Pavements	COMPLETED
12	Automated Sidewalk Quality and Safety Assessment System	COMPLETED
13	Engaging Engineering Students with Transportation Safety: an Educational Module	COMPLETED
14	Comparative Analysis of Dynamic Pricing Strategies for Managed Lanes	COMPLETED

15	A Naturalistic Driving Study Across the Lifespan	COMPLETED
16	Development of Educational and Professional Training Modules on Green/Sustainability Design and Rating Systems for Neighborhood Development and Transportation	COMPLETED
17	Analyzing the Impact of Carbon Regulatory Mechanisms on Supply Chain Management	COMPLETED
18	Developing a New Course for Public Transportation Education	COMPLETED
19	Signalized Intersection Simulation Program for Education	COMPLETED

Table 2. YEAR 1 WORKFORCE DEVELOPMENT PROJECTS (2012)

No.	Project Title	STATUS
1	LEGO Robot Vehicle Afterschool Workshops: Transportation Engineering Problem Solving (Modules 1-5)	COMPLETED
2	K-12 Workforce Development in Transportation Engineering at FIU	COMPLETED
3	Transportation Workforce Development at UAB	COMPLETED
4	Family Engineering Night STRIDE Proposal for K-12 Workforce Transportation Workforce Development (at MSU)	COMPLETED
5	K-12 Workforce Development in Transportation Engineering at UF	Awaiting final report

Table 3. YEAR 2 PROJECTS (2013)

No.	Research Project Title	STATUS
1	Teaching Schoolchildren Pedestrian Safety: A Pragmatic Trial Using Virtual Reality	COMPLETED
2	Dynamic Traffic Control Interventions for Enhanced Mobility and Economic Competitiveness	COMPLETED
3	Livability Performance Measures to Transportation Plans and Projects	COMPLETED
4	Signal Timing Optimization with Consideration of Environmental and Safety Impacts	Waiting for draft final report
5	Engineers Change the World: A Hands-on Workshop for 13- to 18-Year-Old Girls	COMPLETED
6	GIS-Based Instructional Tool for Crash Prediction Methods	COMPLETED
7	School Transportation: Development of an Education Module	COMPLETED
8	On-Board-Diagnostics (OBD) Data Integration into Traffic Microsimulation for Vehicle-Specific Fuel Use and Emissions Modeling and In-Vehicle App Testing	Under peer-review

9	Investigating the Effect of Drivers' Body Motion on Traffic Safety	COMPLETED
10	Distracted Driving - It Is Not Always a Choice	Awaiting draft final report
11	Using Crowdsourcing to Prioritize Bicycle Route Network Improvements	Under peer-review

Table 4. YEAR 2 WORKFORCE DEVELOPMENT PROJECTS (2013)

No.	Project Title	STATUS
1	LEGO Robot Vehicle Afterschool Workshops: Transportation Engineering Problem Solving (Modules 1-5)	COMPLETED
2	K-12 Workforce Development Activities at NCSU	COMPLETED
3	Engaging in Engineering Initiative with Centennial Elementary School at GaTech	COMPLETED
4	K-12 Workforce Development Activities at UAB	COMPLETED
5	K-12 Workforce Development Activities at UF	COMPLETED

Table 5. Supplemental Technology Transfer Projects (2015 & 2016)

No.	Project Title	STATUS
1	Development of Case Studies, Numerical Exercises, and Instructional Modules for Teaching Roadway Safety Analysis	ACTIVE
2	Statewide Training for SafetyAnalyst in Florida	COMPLETED
3	Workshops Related to STRIDE Funded Study of Multi-modal Costs of School Transportation	COMPLETED
4	Workshops for Managed Lanes on Arterials	COMPLETED
5	Extension of Signal Timing Optimization with Consideration of Environmental and Safety Impacts	ACTIVE
6	Evaluation of Traffic Control Options in Work Zone	ACTIVE
7	Infrastructure Adaptation Planning for Autonomous Vehicles	COMPLETED
8	Dynamic ATM Strategy Selection Tool (FREEVAL-DSS) – Workshops 1, 2 and 3	COMPLETED
9	Technology Transfer Workshops Based on A Regional Land Use Transportation Decision Support Tool for Mississippi	ACTIVE
10	Development of Support Systems, Instructional Modules, and a Case Study for the Enhanced Driving Simulator at the Gator Tech Smart House	ACTIVE
11	Cycle Atlanta Application	ACTIVE
12	Evaluating Child Restraint System (CRS) Installation using Interactive Visual Presence	Under peer-review
13	Active Transportation Network Based on the Tanglefoot Trail	ACTIVE

14	Practitioner Workshop on School Siting and School Transportation Impacts	ACTIVE
15	Evaluating the Relationship Between School Site Selection, Residential Developments and School Transportation in North Carolina	ACTIVE
16	Sidewalk Survey Implementation for the Southeast Region	ACTIVE
17	Educational and Professional Training Modules on Green/Sustainability Design and Rating Systems: Workshop	ACTIVE
18	Empowering Girls in Science and Engineering	COMPLETED

b) To serve as the focal point for transportation research, education and outreach in the region

Accomplishments:

Annual UTC Conference for the Southeastern Region

The Annual UTC Conference for the Southeastern Region continues to be offered, thanks to the innovative efforts of the STRIDE Center, which conceptualized the conference in 2013. This year, the conference will be hosted by the University of Florida under the newly awarded 2016 UTC Regional UTC for the Southeast. Preparations are underway for planning the conference, which will take place in November 2017. The UTC Conference for the Southeastern Region is now in its fifth year. The first conference was hosted by the University of Florida in 2013, followed by the GaTech in 2014, the University of Alabama at Birmingham in Birmingham in 2015 and in 2016, it was hosted by the University of Tennessee in Knoxville. The STRIDE Center co-sponsored all the conferences along with other UTCs in the region.

STRIDE Technology Transfer Activities

The following technology transfer activities took place this reporting period (Table 5):

1. ATM Workshop on FREEVAL-DSS. The third workshop in the series of ATM Workshops on FREEVAL-DSS took place at the Transpo 2016 Conference in West Palm Beach on Nov 13. The link to the flier related to this third and final workshop is:
<https://custom.cvent.com/92CFB39BAB784058982EFC7894728ABF/files/event/C4CFBCA661F4A0A9185037D6B475E7C/20aa7772f3484ea5b2a53f10279b63d3.pdf>
2. Statewide Training of Safety Analyst in Florida. This was a two-part project that included: 1) a one-hour session on Engineering Statistics 101 for Safety, which was held at the 2015 Florida Department of Transportation (FDOT) Design Expo, and 2) the development of a one-hour training session that provided an overview of Safety Analyst. The one-hour training session was recorded in July 2016 and was reviewed by Mr. Joseph Santos, PE, FDOT State Safety Engineer. It was re-recorded in September 2016 and provided as a webinar. The link to the recorded webinar/training is: <http://209.191.183.30/technology-transfer-projects-2015>.

Educational Projects

Table 6 provides a comprehensive list of the educational products produced by STRIDE-funded projects. There has been no change to this table in the past 6 months and the educational projects are all completed.

All STRIDE-funded educational projects are posted at: <http://www.stride.ce.ufl.edu/course-materials-developed-by-stride>.

Table 6. STRIDE Educational Products

Project Title	Product
Engaging Engineering Students with Transportation Safety: An Educational Module (STRIDE 2012-085S) (Alternate title: A Transportation Safety Module for Undergraduate Students)	Course Website: http://ergo.research.ise.msstate.edu/stride-classroom-module
Development of Pedestrian and Bicycle Transportation Course Modules (STRIDE Project Number 2012-028S)	Course Website: www.pedbikeinfo.org/training/courses.cfm
Development of Graduate Level Course on Sustainable Asphalt Pavements (STRIDE Project Number 2012-049S)	Course Website: http://eng.auburn.edu/online/professional-development/course-listing/civil-structural.html
Transportation K-12 Workforce Development 2012 at FIU, GaTech, MSU, NCSU, UAB, and UF	K-12 Workforce Development projects at FIU, GaTech, MSU, NCSU, UAB, and UF have yielded lesson plans and information on how to create activities that engage school-age children in engineering and transportation. Information on these activities can be found at: http://stride.ce.ufl.edu/workforce-development LEGO® Robot Vehicle Lesson Plans for Secondary Education; Course website: http://www.t2ctt.ce.ufl.edu/Forms.asp?MODE=NEW&Forms_FormTypeID=-17
Planning for Schools: An Educational Module & Cost Calculator to Support School Siting & Transportation Decision Making (STRIDE Project Number 2013-032S)	Course Website: http://schoolsiting.web.unc.edu/ STRIDE's page for this product: http://stride.ce.ufl.edu/school-transportation-educational-module-cost-calculator
Developing a New Course for Public Transportation Education (STRIDE Project Number 2012-029S)	Course Website: http://stride.ce.ufl.edu/public-transportation-course-modules
Signalized Intersection Simulation Program for Education (STRIDE Project Number (2012-076S)	Course Website: http://stride.ce.ufl.edu/signalized-intersection-simulation-program-for-education

Training Modules on Green/Sustainability Design and Rating Systems for Neighborhood Development and Transportation (STRIDE Project Number 2012-051S)

Course Website: <http://stride.ce.ufl.edu/educational-modules-on-green-sustainable-design-and-rating-systems-for-neighborhood-development-and-transportation->

WTS Chapter Development in the Southeast

Ines Aviles-Spadoni, who serves as the STRIDE Center's research coordinator, communicates about twice a year with Ms. Tiffany Jackson, director of chapter development at WTS International. Discussions evolve around creating new chapters, how to provide more opportunities for students and acquiring financial support for chapters. Ms. Aviles-Spadoni also keeps Ms. Jackson engaged with activities related to the UTC Conference for the Southeastern region. It is expected that Ms. Jackson will once again attend and participate in the UTC Conference for the Southeastern Region in November 2017, which will be hosted by STRIDE at the University of Florida.

c) To strengthen the collaboration between the partner universities as well as between the consortium and federal, state, and local agencies

Accomplishments:

- Plans are once again underway for the UTC Conference for the Southeastern Region, which will be hosted by the University of Florida's STRIDE Center under the new grant. The conference brings together local and state agencies as well as federal representatives. STRIDE partner universities attend this conference, including many other academic institutions in the Southeastern U.S.
- Plans are also under way to host a ITE Student Leadership Summit, which will likely be held in conjunction with the UTC Conference in November 2017. The summit will bring together students from universities in the Southeastern U.S. and include speakers from the transportation industry. It is expected that such an event will expand the students' professional network and solidify relationships amongst the chapters. If possible, this event will also include support from the WTS chapters in the region.

d) To develop ties with other UTCs and USDOT's research clusters to create opportunities for collaborative activities across centers.

Accomplishments:

The STRIDE Center continues to facilitate the development of ties with other UTCs and DOTs in the region through the Annual UTC Conference for the Southeastern Region. This conference is an excellent forum for the exchange of ideas and the initiation of collaboration amongst centers.

STRIDE actively participates in CUTC (Dr. Elefteriadou is currently the Vice-President of the CUTC executive board), which further facilitates collaboration across universities and transportation centers.

e) To disseminate research results to government, academia and private sectors through publication in peer-reviewed journals, conference papers and presentations at transportation-related industry events

Accomplishments:

The following are selected papers and presentations from STRIDE-affiliated researchers in the past six months:

Al-Kaisy, A., J. Amirhossein, S. Washburn, T. Luttinen, and R. Dowling. Performance Measures on Two-Lane Highways: Survey of Practice. Poster presentation at Transportation Research Board meeting (Washington, D.C.). January 2016.

Chen, Z., F. He, L. Zhang, and Y. Yin. Optimal deployment of autonomous vehicle lanes with endogenous market penetration. *Transportation Research Part C*, 2016, 72, 143–156.

Chen, X., M. Hadi, Y. Xiao, L. Elefteriadou, Development of Macroscopic Emission Estimation Model Based on Microscopic Operating Modes, *Journal of the Transportation Research Board, Journal of the Transportation Research Board of the National Academies*, Washington, D.C., August 2016, No 2570, pages 39–47.

Hu, Jiangchuan, C. Frey and S. Washburn. Comparison of Vehicle-Specific Fuel Use and Emissions Models Based on Externally and Internally Observable Activity Data. Poster presentation at Transportation Research Board meeting (Washington, DC). January 2016.

Kondyli, A., B. St. George, L. Elefteriadou, and G. Bonyani, Defining, Measuring and Modeling Capacity for The Highway Capacity Manual accepted for publication in the *ASCE Journal of Transportation Engineering*, September 2016.

Kondyli, A., B. St. George, and L. Elefteriadou, Comparison of Travel Time Measurement Methods along Freeway and Arterial Facilities, accepted for publication in the *Transportation Letters: the International Journal of Transportation Research*, September 2016.

Michalaka, D., R. Steiner, and L. Elefteriadou, Roundabouts as a Form of Access Management, *Transportation Research Record: Journal of the Transportation Research Board of the National Academies*, No 2556, Washington, D.C., February 2016.

Michalaka, D. R. Xu, J. Page, R.L. Steiner, S. Washburn, and L. Elefteriadou, Roundabouts as a Form of Access Management. Poster presentation at Transportation Research Board meeting (Washington, D.C.). January 2016.

Moreno, A.T., C. Llorca, S. Washburn, J.E. Bessa, J.E., and A. Garcia, A. Effect of Average Passing Zone Length on Spanish Two-Lane Highway Performance. Poster presentation at Transportation Research Board meeting (Washington, D.C.). January 2016.

Sisiopiku, V.P., S. V. Mamidipalli, B. Schroeder, and L. Elefteriadou, Time-of-Day Visibility-based Pedestrian Gap Acceptance Model for Two-Way Stop Controlled Crossings, World Multidisciplinary Civil Engineering - Architecture - Urban Planning Symposium - WMCAUS 2016, Prague, June 2016.

Washburn, Scott S. Signalized Intersection Simulation Program for Education. Final Report. Southeastern Transportation Research, Innovation, Development and Education Center. University of Florida, Gainesville, FL. March 2016. 29 pages.

Washburn, S., C. Frey, N. Roupail, S. Ozkul, Seckin and J. Hu. On-Board-Diagnostics (OBD) Data Integration into Traffic Microsimulation for Vehicle-Specific Fuel Use and Emissions Modeling and In-Vehicle App Testing. STRIDE Final Report, Southeastern Transportation Research, Innovation, Development and Education Center. University of Florida, Gainesville, FL. February 2016. 111 pages.

Washburn, S., C. Frey, N. Roupail, J. Hulsberg, and J. Hu. Emissions Modeling and Integration into Microsimulation Modeling. Final Report. Southeastern Transportation Research, Innovation, Development and Education Center. University of Florida, Gainesville, FL. September 2015. 156 pages.

Washburn, S. NCHRP 17-65 project (Two-Lane Highway Operations Analysis) overview. International Highway Symposium on Enhancing Highway Performance Berlin, Germany. June 17, 2016.

Zheng, Y. and P. Manjunatha .Empirical Assessment of Adaptive Signal Control Technologies in Florida, submitted for publication and to be presented, Annual Transportation Research Board Meeting, Washington D.C., January 2017.

Zheng, Y., T. Chase, L. Elefteriadou, V. Sisiopiku, and B. Schroeder, Driver Types and Their Behaviors within A High Level of Pedestrian Activity Environment, Transportation Letters: the International Journal of Transportation Research, Volume 9, Issue 1, January 2017.

Zheng, Y. and L. Elefteriadou, "A Model of Pedestrian Delay at Unsignalized Intersections in Urban Networks, accepted for publication in Transportation Research: Part B, November 2016.

- f) **To establish additional mechanisms, including the use of social media, by which important research findings are made available to researchers and others with an interest in transportation matters**

Accomplishments:

- The STRIDE Center actively uses its website (stride.ce.ufl.edu) and Facebook (<https://www.facebook.com/southeastertransportationcenter>) to disseminate information on products and events.
- Twitter (<https://twitter.com/STRIDE.UTC>) is also widely used to announce events, webinars, conference, completed projects and other important information related to STRIDE and other UTC activities.
- The STRIDE Center continues to participate in former USDOT Secretary Anthony Foxx's Twitter campaign on #AmazingUTCs.
- The STRIDE Center uses Constant Contact, an online email marketing service to advertise annual reports, completed projects, events, and any other products produced by the Center. Webinars and workshops are also used to disseminate information and products related to Center-funded research.

- g) **To utilize research project activities to promote transportation-related careers and employment opportunities for education and workforce development**

The STRIDE Center has selected for its summer program two interns from the Herbert Wertheim College of Engineering's internship program, known as the Summer Undergraduate Research at Florida (SURF) program. The students are Lorenzo Connor and Asean Davis. The students will be working with Dr. Lily Elefteriadou and Dr. Siva Srinivasan at the University of Florida.

Workforce Development Activities:

There are no workforce development activities to report since all K-12 projects were completed in 2015.

How have results been disseminated?

1. Information on completed projects is made available to transportation professionals, students and faculty in the public and private sectors via the use of Constant Contact, an email marketing tool.
2. Reports are also posted on the STRIDE website, included in the STRIDE newsletter and annual report and in refereed journals.
3. The STRIDE Center continues to showcase ongoing and completed projects at the Annual UTC Conference for the Southeastern Region.
4. Results are posted on the STRIDE, Facebook and Twitter pages.

What do you plan to do during the next reporting period to accomplish the goals?

Since the official end date for the STRIDE Center is June 30, 2017, we will be working on closing the grant. Nevertheless, all final reports and products related to the STRIDE 2012 grant will be posted on the STRIDE 2016 website, which is expected to be launched at the end of March 2017.

Research Products

List any research products resulting from the program during the reporting period

- GIS-based Instructional Tool for Crash-Prediction Methods. This is an educational tool which will allow people to learn about the underlying principles of the Highway Safety Manual (HSM) using calculations based on real world data and an interactive setting that allows for self-directed what-if analyses. The tool can be accessed at: <https://s4.geoplan.ufl.edu/analytics-stride/>.

Participants and Other Collaborating Organizations

Table 7 provides a comprehensive list of universities, other academic institutions and agencies that the STRIDE Center has been collaborating with in various capacities.

Table 7. Partners and Participating Organizations		
Organization Name	Location	Contribution
University of Florida	Gainesville, FL	Lead University
Auburn University	Auburn, AL	Partner University
Georgia Institute of Technology	Atlanta, GA	Partner University
Mississippi State University	Mississippi State Univ., MS	Partner University
North Carolina State University	Raleigh, NC	Partner University
University of Alabama at Birmingham	Birmingham, AL	Partner University
University of North Carolina	Chapel Hill, NC	Partner University
Florida Department of Transportation (FDOT)	Tallahassee, FL	Matching funds commitment
Alabama Department of Transportation (ALDOT)	Montgomery, AL	Matching funds commitment
Georgia Department of Transportation (GDOT)	Atlanta, GA	Matching funds commitment
Mississippi Department of Transportation (MDOT)	Jackson, MS	Matching funds commitment
North Carolina Department of Transportation (NCDOT)	Raleigh, NC	Matching funds commitment

Table 8. Other Collaborators			
Organization Name	Location	Contribution	Comments

Town of Carrboro (Jeff Brubaker)	North Carolina	Collaboration	
Town of Chapel Hill (Council member Jim Ward)	North Carolina	Collaboration	
Durham-Chapel Hill-Carrboro MPO (Andrew Henry and other staff)	North Carolina	Collaboration	
University of North Carolina Facilities Planning	North Carolina	Collaboration	
Carrboro Bicycle Coalition (Seth Lajeneusse North Carolina and other staff)	North Carolina	Collaboration	
Triangle J Council of Governments (John Hodges Copple and other staff)	North Carolina	Collaboration	
Federal Highway Administration	Washington, DC	Collaboration	
Federal Transit Administration	Washington, DC	Collaboration	
Woman's Transportation Seminar (WTS) International	Washington, DC	Collaboration in the creation of new chapters in the Southeast	Various K-12 workforce development programs for STRIDE Project Number 2012-009S
WTS NC Triangle Chapter	Raleigh, NC	Collaboration	Various K-12 workforce development programs for STRIDE project Number 2012-009S

University of North Florida	Jacksonville, FL	Facilities, collaboration, personnel exchanges	K-12 workforce development program for STRIDE Project Number 2012-009S
21 st Century Community Learning Center of Alachua County	Gainesville, FL	Facilities, collaboration, personnel exchanges	Various K-12 workforce development programs for STRIDE project Number 2012-009S
North Florida WTS Chapter	Jacksonville, FL	Facilities, collaboration, personnel exchanges	Various K-12 workforce development programs for STRIDE Project Number 2012-009S
WTS Central Florida Chapter	Orlando, FL	Facilities, collaboration	Various K-12 workforce development programs for STRIDE Project Number 2012-009S
Center for Transportation and the Environment (CTE) at North Carolina State University	Raleigh, NC	Facilities, Collaborative research Personnel exchanges	Various K-12 workforce development programs for STRIDE Project Number 2012-009S
Highway Safety Research Center at North Carolina State University	Raleigh, NC	Facilities, Collaborative research personnel exchanges	For data extraction of injuries and crashes on STRIDE Project Number 2012-022S
Roybal Center for Translational Research on Aging and Mobility, University of Pennsylvania	Philadelphia, PA	Collaborative research, personnel exchanges	The director of the Roybal Center, Dr. Karlene Ball, is a member of the multidisciplinary Advisory Committee for STRIDE research project 2012-095 . The center has vast expertise in

			cognitive research aimed to older adults
Safe Routes to School	Federal program, various states	Personnel exchanges, collaborative research on STRIDE project 2012-067S	Assisted in collecting sidewalk data for STRIDE Project Number 2012-067S
Atlanta Regional Commission	Atlanta, GA	Personnel exchanges, Facilities, collaborative research on STRIDE project 2012-067S	Transportation Division, bicycle and pedestrian planning for STRIDE Project Number 2012-067S
City of Atlanta	Atlanta, GA	Personnel exchanges, facilities, collaborative research on STRIDE project 2012-067S	Department of Public Works, Department of Planning and Community Development for STRIDE Project Number 2012-067S
Atlanta City Council Sidewalk Task Force	Atlanta, GA	Personnel exchanges, facilities, collaborative research on STRIDE project 2012-067S	Members of the research team on STRIDE Project Number 2013-067S participate in the Atlanta City Council Sidewalk Task Force, which involves attending general meetings and subcommittee meetings related to policy and funding for pedestrian facility maintenance. The full Sidewalk Task Force includes city staff from the department of Public Works and department of Planning, elected officials, and pedestrian advocates.

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Atlanta Pedestrian Organization (PEDS)	Atlanta, GA	Personnel exchanges on STRIDE project 2012-067S	Staff and volunteers at PEDS participated in initial testing of the sidewalk survey instrument and provided feedback that was then incorporated into the instrument before full scale deployment.
Tulane University	New Orleans, LA	Personnel exchanges, collaborative research, financial support	Collaboration and as partial match for petroleum related releases
Cambridge Systematics	Tallahassee, Florida	Anita Vandervalk participates on the STRIDE External Advisory Board	
National Center for Transportation Systems Productivity and Management (NCTSPM), Georgia Institute of Technology	Atlanta, GA	Financial support	Co-sponsors for the UTC Conference for the Southeastern Region
National Center for Intermodal Transportation (NCITEC), Mississippi State University	Miss. State, MS	Financial support	Co-sponsors for the UTC Conference for the Southeastern Region
National Center for Transit Research (NCTR), University of South Florida,	Tampa, FL	Financial support	Co-sponsors for the UTC Conference for the Southeastern Region
Centennial Place Elementary School	Atlanta, GA	Facilitates	For K-12 activities
Girl Scouts of Gateway Council, Camp Kateri	Orange Springs, FL	Facilitates	For K-12 activities
Williams Elementary School	Gainesville, FL	Facilities	For K-12 activities
PK Yonge Research School	Gainesville, FL	Facilities	For K-12 activities
Lincoln Middle School	Gainesville, FL	Facilities	For K-12 activities

Mebane Middle School	Gainesville, FL	Facilities	For K-12 activities
Bishop Middle School	Gainesville, FL	Facilities	For K-12 activities
UF - Lawton Chiles Elementary School	Gainesville, FL	Facilities	For K-12 activities
Boone High School	Orlando, FL	Facilities	For K-12 activities
Arlington Middle School	Jacksonville, FL	Facilities	For K-12 activities
Jordan Glen School	Archer, FL	Facilities	For K-12 activities
21st Century Community Learning Center, Alachua County Public Schools	Gainesville, FL	Facilities and Collaboration	For K-12 activities
MSU – St. Martins Middle School, Arthur Watson Elementary School; Jackson County Schools, Mississippi; St. Martins Elementary, Mississippi	Pascagoula, MS and St. Martins, MS.	Facilities	For K-12 activities at Mississippi State University
Centennial Campus Magnet Middle School	Raleigh, NC	Facilities	For K-12 activities at North Carolina State University
Cade Museum	Gainesville, FL	Facilities	For K-12 activities at UF
UF Center for Pre-collegiate Education and Training	Gainesville, FL	Facilities	For K-12 activities at UF
University of North Florida	Jacksonville, FL	Facilities and collaboration	STRIDE K-12 workforce development activities at UF and on STRIDE project 2012-009S
University of Florida LTAP	University of Florida, Gainesville, FL	Personnel exchanges, facilities, collaborative research on STRIDE project 2012-067S	STRIDE K-12 workforce development activities at UF and on STRIDE project 2012-009S
RPCGB - Darrell Howard, Deputy Director of Planning	Birmingham, AL	Personnel exchanges	

Franchesca Taylor, Active Transportation Planner			
North Carolina Local Technical Assistance Program (NC LTAP)	Raleigh, NC	Personnel exchanges	STRIDE K-12 workforce development activities at UF and on STRIDE project 2012-009S

Impact

What is the impact of the program? How has it contributed to transportation education, research, and technology transfer? (See below)

- **What is the impact on the development of the principal discipline(s) of the program?**
 During the five years that the STRIDE Center has been in operation, its research, education, technology transfer and workforce development activities impacted the interdisciplinary nature of transportation engineering in the following ways:

 - ✓ Researchers from across the southeastern U.S. affiliated with the STRIDE Center have collaborated on multiple projects
 - ✓ Students affiliated with the STRIDE Center have had the opportunity to intern at other universities within the STRIDE consortium.
 - ✓ Funding has been provided to students affiliated with the STRIDE Center to travel to conferences to present their papers or posters and to network with transportation professionals, other students and faculty.
 - ✓ Research, courses and other products generated by the STRIDE Center is made available on the Center’s website for public dissemination.
 - ✓ Various workshops and webinars have been produced which have been disseminated widely to state DOTs and transportation professionals.
- **What is the impact on other disciplines?**
 During the life of the grant, the STRIDE Center has continued to engage in interdisciplinary collaboration in research projects, education, workforce development and technology transfer. Projects have involved psychologists, computer scientists, mechanical engineers, civil engineers, industrial engineers, urban planners and even law enforcement. Below are some examples:

 - ✓ An FDOT match project engages mechanical engineers and computer scientists to develop new algorithms for autonomous and connected vehicle trajectory optimization.
 - ✓ An FDOT match project engages computer scientists to use big data as related to transportation.
 - ✓ A STRIDE-funded project engages a computer scientist working on virtual reality to understand transportation safety while driving.
 - ✓ Psychologists have worked on STRIDE funded projects to improve pedestrian safety for children and young drivers.
 - ✓ Transportation engineers and a former Florida highway patrol officer conducted research to understand the characteristics of Road Ranger crashes and to identify

practices and procedures that have the potential to mitigate identified dangers for Road Rangers.

- ***What is the impact on transportation workforce development? (some examples listed below)***
 - ✓ During the 2016 Girls in Science and Engineering Day at UAB, approximately 100 girls were exposed to STEM-related concepts with 45 different schools attending.
 - ✓ In 2013 during Kid in Engineering Day, various elementary school children were introduced at UAB to “overcome unfamiliarity with the engineering field”. More than 35 children from the 4th and 5th grade levels in the Birmingham school area attended. Activities included “Five points traffic jam” and “Straw tower and paper bridge building”.
 - ✓ NCSU and UF created “LEGO Robot Vehicle Lesson Plans for Secondary Education” for middle-school children. Concepts taught were advanced technologies, congestion mitigation traffic signals, and urban corridors.
 - ✓ Several elementary schools in the southeastern U.S. have participated in transportation and STEM-related activities via the K-12 projects funded by the STRIDE Center such as Family Engineering Nights hosted by Mississippi State University’s College of Engineering held in 2014 where 585 families participated in activities that simulated the work and ideas of engineering.
 - ✓ A K-12 project at FIU introduced elementary and high school children to GIS, traffic safety, and traffic simulation in the Miami-Dade area. More than 1,400 were exposed to these and other concepts during the FIU annual Engineering Expo.
 - ✓ At UF, elementary and high school children were exposed to engineering concepts during multiple activities held in the Gainesville area such as: LEGO Robot Vehicle Lesson Plans for Secondary Education, Transportation Career Day, and Family Engineering Events. UF also collaborated with the Cade Museum in town, which focuses on creativity and innovation; the LEGO robots curriculum was very popular at this location.
 - ✓ An active learning program was developed at GaTech with STRIDE funds and hosted at Centennial Place Academy, which is a metro Atlanta public school serving a racially diverse and low income population. A total of 82 students participated in this two-day class, which exposed the students to transportation topics such as pedestrian accessibility, design, mode choice, a travel survey, and traffic engineering and transportation human factors. Students were also taught about the research process (hypothesis, methods, data collection, analysis, results, and conclusions).

- ***What is the impact on physical, institutional and information resources at the university or other partner institutions?***
 - ✓ Undergraduate students have been made aware of internship opportunities within the STRIDE partner institutions.
 - ✓ Graduate students have been made aware of fellowship and assistantship opportunities via participation in STRIDE funded projects.
 - ✓ Through the UTC Conference for the Southeastern Region, students, faculty researchers and other transportation professionals have been made aware of the type of not only the type of research taking place within STRIDE and other universities in the Southeastern U.S., but the expertise areas for future collaborations.

- ✓ At UF, there is a newly upgraded driving simulator on campus which will facilitate research conducted by STRIDE.
- ✓ The STRIDE Center, its products and activities have served to increase the importance and breadth of transportation at UF and all partner institutions.
- ***What is the impact on technology transfer?***

Throughout the life of the grant, the STRIDE Center has sponsored workshops, webinars and conferences. These activities have reached transportation professionals, faculty and students across the nation. Some example include:

 - ✓ The Statewide Training of SafetyAnalyst in Florida project produced a one-hour training video for Florida Department of Transportation (FDOT) employees. A link to the video will be posted at <http://209.191.183.30/technology-transfer-projects-2015>.
 - ✓ The Dynamic Traffic Control Interventions for Enhanced Mobility and Economic Competitiveness project produced a tool that has yielded several workshops which have reached transportation professionals at several locations. For example, a FREEVAL-DSS workshop was held in Chicago, Illinois at the Mid-Western ITE Conference. Another workshop was held during the UTC Conference for the Southeastern Region in Knoxville, Tennessee. A 3-hour workshop was held in Palm Beach, Florida during TRANSPPO in November 2016. A fourth workshop will be held in Oakland, California at the KAI offices. Approximately 85 people are expected to attend from the Bay Area. Here is a link to the workshop registration: <http://events.kittelson.com/events/3209-freeway-analysis-software-in-the-hcm-6th-edition-the-role-of-active-traffic-management-strategies>
 - ✓ STRIDE Workshop: Planning Tools for Linking Rural Development and Transportation was held in September 2016 as part of a 2012 STRIDE funded project titled A Regional Land-Use Transportation Decision Support Tool for Mississippi to introduce a suite of quantitative and qualitative tools to forecast a region's economy, land use, streetscape and transportation system.
- ***What is the impact on society beyond science and technology?***

New and improved tools and methods have been developed by STRIDE research to enhance mobility and safety. The educational materials produced by researchers affiliated with the STRIDE Center have been disseminated and used widely across the country. Collaboration between academia, public and private sectors remains strong and STRIDE continues to assist in the development and implementation of research products by funding technology transfer and workforce development activities.

Changes/Problems

- Changes in approach and reasons for change: *NOTHING TO REPORT.*
- Actual or anticipated problems or delays and action or plans to resolve them *NOTHING TO REPORT.*
- Changes that have a significant impact on expenditures: *NOTHING TO REPORT.*

- Significant changes in use or care of human subjects, vertebrate animals and/or biohazards: *NOTHING TO REPORT.*
Change of primary performance site location from that originally proposed: *NOTHING TO REPORT.*

Special Reporting Requirements

(Award-specific reporting requirements)

- Federal Financial Report – *This report is prepared by the grants specialist at UF responsible for managing all STRIDE related financial duties.*
- Federal Financial Accountability and Transparency Act (FFATA) Sub-award and Executive Compensation Reporting Requirement – *This report is prepared by the College of Engineering contracts office.*

List of Projects and PIs (STRIDE 2013)

Dynamic Traffic Control Interventions for Enhanced Mobility and Economic Competitiveness

PI: Nagui Roupail, Ph.D., North Carolina State University

Co-PI: Mohamed Hadi, Ph.D., Florida International University

\$150,000

Signal Timing Optimization with Consideration of Environmental and Safety Impacts

PI: Mohamed Hadi, Ph.D., Florida International University

Co-PIs: Lily Elefteriadou, Ph.D., University of Florida

\$120,000

On-Board-Diagnostics (OBD) Data Integration into Traffic Microsimulation for Vehicle-Specific Fuel Use and Emissions Modeling and In-Vehicle App Testing

PI: Scott Washburn, Ph.D., University of Florida

Co-PIs: Christopher Frey, Ph.D., North Carolina State University; Nagui Roupail, Ph.D., North Carolina State University

\$150,000

Using Crowdsourcing to Prioritize Bicycle Route Network Improvements

PI: Jeffrey J. LaMondia, Ph.D., Auburn University

Co-PI: Kari Watkins, Ph.D., Georgia Institute of Technology

\$100,000

Distracted Driving – It is not always a choice.

PI: Mike Hunter, Ph.D., Georgia Institute of Technology

Co-PI: Gregory M. Corso, Ph.D., Morehead State University

\$150,000

GIS-Based Instructional Tool for Crash Prediction Methods

PI: Ilir Bejleri, Ph.D., University of Florida
Co-PI: Siva Srinivasan, Ph.D., University of Florida
\$89,961

Investigating the Effect of Drivers' Body Motion on Traffic Safety

PI: Angelos Barmountis, Ph.D., University of Florida
Co-PIs: Alexandra Kondyli, Ph.D., University of Florida; Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
\$132,972

Applying Livability Performance Measures to Transportation Plans and Projects

PI: Leigh Blackmon Lane, Ph.D., North Carolina State University
\$53,000

Engineers Change the World: A Hands-on workshop for 13- to 18-Year-Old Girls

PI: James Martin, Ph.D., North Carolina State University
Co-PI: Nina Barker, University of Florida
\$42,452

Teaching Schoolchildren Pedestrian Safety: A Pragmatic Trial Using Virtual Reality

PI: David Schwebel, Ph.D., University of Alabama at Birmingham
Co-PIs: Daniel Rodriguez, Ph.D., University of North Carolina at Chapel Hill; Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
\$150,000

School Transportation: Development of an Education Module

PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill
Co-PI: Ruth Steiner, Ph.D., University of Florida
\$71,000

List of Projects and PIs (STRIDE 2012)

(The following projects were selected for funding)

Quantifying the Costs of School Transportation

PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill
Co-PIs: Ruth Steiner, Ph.D., University of Florida; Jeff Tsai, Ph.D., North Carolina State University
\$250,313

Empirically-Based Performance Assessment and Simulation of Pedestrian Behavior at Unsignalized Crossings

PI: Bastian Schroeder, Ph.D., North Carolina State University
Co-PIs: Lily Elefteriadou, Ph.D., University of Florida; Virginia Sisiopiku, University of Alabama at Birmingham
\$315,148

Comparative Analysis of Dynamic Pricing Strategies for Managed Lanes

PI: Jorge Laval, Ph.D., Georgia Institute of Technology

Co-PIs: Yafeng Yin, University of Florida; Yingyan Lou, University of Alabama

\$204,526

Signalized Intersection Simulation Program for Education

PI: Scott Washburn, Ph.D., University of Florida

\$34,212

Investigation of ATDM Strategies to Reduce the Probability of Breakdown

PI: Mohammed Hadi, Ph.D., Florida International University

Co-PI: Lily Elefteriadou, Ph.D., University of Florida

\$190,792

Engaging Engineering Students with Transportation Safety: An Educational Module

PI: Lesley Strawderman, Ph.D., Mississippi State University

\$2,610

A Naturalistic Driving Study across the Lifespan

Co-PIs: Despina Stavrinos, Ph.D. and Lesley Ross, Ph.D., University of Alabama at Birmingham

\$125,071

Development of Educational and Professional Training Modules on Green/Sustainability Design and Rating Systems for Neighborhood Development and Transportation

PI: Robert W. Peters, Ph.D., University of Alabama at Birmingham

Co-PI: Adjo Amekudzi, Ph.D., Georgia Institute of Technology

\$45,809

Developing a New Course for Public Transportation Education

PI: Kari Edison Watkins, Ph.D., Georgia Institute of Technology

Co-PI: Jeffrey LaMondia, Ph.D., Auburn University

\$70,000

Automated Sidewalk Quality and Safety Assessment System

PI: Randall Guensler, Ph.D., Georgia Institute of Technology

\$196,667

Development of Pedestrian and Bicycle Transportation Course Modules

PI: Daniel Rodriguez, Ph.D., University of North Carolina at Chapel Hill

Co-PI: Rod Turochy, Ph.D., Auburn University

\$25,750

Consequence Based Route Selection for Hazardous Material Cargo: GIS-Based Time Progression of Environmental Impact Radius of Accidental Spills

PI: Berrin Tansel, Ph.D., Florida International University

Co-PIs: Adjo Amekudzi, Ph.D., Georgia Institute of Technology; Nasim Uddin, University of Alabama at Birmingham

\$70,000

Analyzing the Impact of Carbon Regulatory Mechanisms on Supply Chain Management

PI: Sandra Eksioglu, Ph.D., Mississippi State University

Co-PI: Joseph Geunes, Ph.D., University of Florida

\$128,629

Engineering: It's for Girls, Too!

PI: James Martin, PE, North Carolina State University

Co-PI: Lily Elefteriadou, Ph.D., University of Florida

\$38,895

A Regional Land Use Transportation Decision Support Tool for Mississippi

PI: Brian Morton, Ph.D., University of North Carolina at Chapel Hill

Co-PIs: John Poros, Ph.D., Mississippi State University; Joe Huegy, Ph.D., North Carolina State University

\$120,380

Towards a Holistic Understanding of Quality of Life: An Analysis of Activity-Travel Patterns on Non-Mid-week Days

PI: Siva Srinivasan, Ph.D., University of Florida

Co-PI: Xia Jin, Ph.D., Florida International University

\$77,790

Development of Graduate Level Course on Sustainable Asphalt Pavements

PI: James Richard Willis, Ph.D., Auburn University

\$47,837

Emissions Modeling and Integration into Traffic Micro-simulation

PI: Scott Washburn, Ph.D., University of Florida

Co-PIs: Nagui Roupail, Ph.D., North Carolina State University; H. Christopher Frey, Ph.D., North Carolina State University

\$251,764

List of Selected Cost Share Projects

(At the University of Florida)

Local Technical Assistance Program for Transportation Agencies 2012

PI: Nina Barker, UFTI/T2 Center

FDOT Project No: BDK76-977-14

\$294,408

Modeling, Implementation, and Validation of Arterial Travel Time Reliability

PI: Lily Elefteriadou, Ph.D., University of Florida

FDOT Project No: BDK77-977-20

\$149,962

Project Development Capacity for Small Communities in Coordination with the LTAP Center

PIs: Siva Srinivasan, Ph.D., University of Florida and Ilir Bejleri, Ph.D., University of Florida

FDOT Project No: BDK77-977-21

\$179,618

Roundabouts and Access Management

PIs: Ruth Steiner, Ph.D., University of Florida and Scott Washburn, Ph.D., University of Florida

FDOT Project No: BDK77-977-22

\$219,086

Lifting High-Occupancy Vehicle Lane Eligibility and Shoulder Use Restrictions for Traffic Incident Management

PI: Yafeng Yin, Ph.D., University of Florida

FDOT Project No: BDK77-977-23

\$122,121

Planning for Incorporating Ancillary Demands in the Next Generation FSUTMS

PI: Sivaramakrishnan Srinivasan, Ph.D., University of Florida

FDOT Project No: BDK77-931-16

\$158,485

Deployment Strategies of Managed Lanes on Arterials

PIs: Yafeng Yin, Ph.D., University of Florida and Siriphong Lawphongpanich, Ph.D., University of Florida

FDOT Project No: BDV32-977-01

\$250,010

Local Technical Assistance Program for Transportation Agencies 2013

PI: Nina Barker, UFTI/T2 Center

FDOT Project No: BDV33-977-01

\$300,000

Comparison of Methods for Measuring Travel Time at Florida Freeways and Arterials

PI: Lily Elefteriadou, Ph.D., University of Florida

FDOT Project No: BDV32-977-02

\$619.88

Estimation Capacities on Florida Freeways

PI: Lily Elefteriadou, Ph.D., University of Florida

FDOT Project No: BDV32-977-03

\$97,621

Crash Prediction Method for Freeway Facilities with High Occupancy Vehicle (HOV) and High Occupancy Toll (HOT) Lanes

PI: Siva Srinivasan, Ph.D., University of Florida
FDOT Project No: BDV32-977-04
\$217,593

Local Technical Assistance Program for Florida Transportation Agencies 2014/2015

PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDV33-977-02
\$300,000

Before and After Implementation Studies of Advance Signal Technologies in Florida

PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDV-32-977-05
\$840,133

Surveying Florida MPO Implementation Studies of Advance Signal Technologies in Florida

PI: Siva Srinivasan, Ph.D., University of Florida; Carl Crane, Ph.D., University of Florida; and Ruth Steiner, Ph.D., University of Florida
FDOT Project No: BDV32-977-06
\$223,726

Evaluation of Arterial Corridor Improvements and Traffic Management Plans in Florida

PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDV31-977-44
\$137,164

Development and Testing of Optimized Autonomous and Connected Vehicle Trajectories at Signalized Intersections

PI: Lily Elefteriadou, Ph.D., University of Florida; Carl Crane, Ph.D., University of Florida; and Sanjay Ranka, Ph.D., University of Florida
FDOT Project No: BDV31-977-45
\$392,604

Local Technical Assistance Program (LTAP) 2015/2016

PI: Maria Cahill, T2 Director, University of Florida Transportation Institute (UFTI)
FDOT Project No: BDV33-977-03
\$300,000

Warrants, Design, and Safety of Road Ranger Service Patrols

PI: Yafeng Yin, Ph.D., University of Florida and Siva Srinivasan, Ph.D., University of Florida
FDOT Project No: BDV31-977-52
\$195,417

Improvements to the FDOT Travel Time Reliability Model for Freeway Analysis

PI: Lily Elefteriadou, Ph.D., University of Florida

FDOT Project No: BDV32-934-01
\$80,000

Local Technical Assistance Program (LTAP) 2016/2017

PI: Maria Cahill, T2 Director, University of Florida Transportation Institute (UFTI)
FDOT Project No: BDV33-977-04
\$300,000

K-12 Workforce Development Projects

Florida International University, K-12 Workforce Development Activities, 2012

PI: Berrin Tansel, Ph.D.

Mississippi State University, K-12 Workforce Development Activities, 2012

PI Eric Heiselt, Ph.D.

North Carolina State University, K-12 Workforce Development Activities, 2012

PI: James Martin, P.E.

University of Alabama at Birmingham, K-12 Workforce Development Activities, 2012

PI: Virigina Sisiopiku, Ph.D.

University of Florida, K-12 Workforce Development Activities, 2012

PIs: Nina Barker, T2 Assistant Director and Leslie Washburn, P.E.

Georgia Institute of Technology, Engaging in Engineering Initiative with Centennial Elementary School, 2013

PIs: Yanzhi (Ann) Xu, Ph.D., and Alice Grossman (doctoral student)

North Carolina State University, K-12 Workforce Development Activities, 2013

PI: James Martin, P.E.

University of Alabama at Birmingham, K-12 Workforce Development Activities, 2013

PI: Virginia Sisiopiku, Ph.D.

University of Florida, K-12 Workforce Development Activities, 2013

PIs: Nina Barker, T2 Assistant Director and Leslie Washburn, P.E.

Supplemental Technology Transfer Projects

Workshop for Managed Lanes on Arterials

PI: Yafeng Yin, Ph.D., University of Florida and Dr. Siriphong Lawphongpanich, Ph.D., University of Florida
\$25,266

Workshops Related to STRIDE-funded Study of Multi-modal Costs of School Transportation

PI: Noreen McDonald, Ph.D., University of North Carolina, Chapel Hill
\$21,212

Statewide Training of SafetyAnalyst in Florida

PI: Priyanka Alluri, Ph.D., Florida International University
\$20,000

Development of Case Studies, Numerical Exercises, and Instructional Modules for Teaching Roadway Safety Analysis

PI: Siva Srinivasan, Ph.D., University of Florida
\$31,011

Evaluation of Traffic Control Options in Work Zone

PI: Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
\$69,858 (+ an additional \$8,080 for technology transfer and additional task)

Dynamic ATM Strategy Selection Tool (FREEVAL-DSS) (Part 1, 2, and 3)

PI: Nagui Roupail, Ph.D., North Carolina State University
\$13,931

Technology Transfer Workshops Based on a Regional Land Use Transportation Decision Support Tool for Mississippi

PIs: Brian Morton, Ph.D., University of North Carolina at Chapel Hill and John Poros, Mississippi State University
\$33,805

Signal Timing Optimization with Consideration of Environmental and Safety Impacts (supplemental to 2013-022S)

PI: Mohammed Hadi, Ph.D., PE, Florida International University
Co-PI: Lily Elefteriadou, Ph.D., University of Florida
\$108,364

Empowering Girls in Science and Engineering

PI: Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
\$1,524

Infrastructure Adaptation Planning for Autonomous Vehicles

PI: Yafeng Yin, Ph.D., University of Florida
\$69,431

Cycle Atlanta Swift Development

PI: Kari Watkins, Ph.D., Georgia Institute of Technology
\$50,000

Evaluating Child Restraint System (CRS) Installation Using Interactive Visual Preference

PI: David Schwebel, Ph.D., University of Alabama at Birmingham

\$40,880

Active Transportation Network Based on the Tanglefoot Trail

PI: Brian Morton, Ph.D., North Carolina State University

\$28,882

Sidewalk Survey Implementation for the Southeast Region

PI: Randall Guensler, Ph.D. GaTech

\$28,500

Development of Support Systems, Instructional Modules, and a Case Study for the Enhanced Driving Simulator at the Gator Tech Smart House

PI: Siva Srinivasan, Ph.D., University of Florida

\$90,967

Educational and Professional Training Modules on Green/Sustainability Design and Rating Systems: Workshop

PI: Robert Peters, Ph.D., University of Alabama at Birmingham

Co-PI: Despina Stavrinou, Ph.D., University of Alabama at Birmingham

\$10,529

Practitioner Workshop on School Siting and School Transportation Impacts

PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill

Co-PI: Ruth Steiner, Ph.D., University of Florida

\$49,131

Evaluating the Relationship between School Site Selection, Residential Developments and School Transportation in North Carolina

PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill

Co-PI: Thomas Dudley, Ph.D., North Carolina State University, ITRE

\$30,922

Distracted Driving: Summary and Assessment of Ways to Alleviate

PI: Robert Peters, University of Alabama at Birmingham

\$21,675